

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2016/064984 A1

(43) International Publication Date
28 April 2016 (28.04.2016)

- (51) International Patent Classification:
C08L 23/08 (2006.01) *B32B 1/08* (2006.01)
- (21) International Application Number:
PCT/US2015/056630
- (22) International Filing Date:
21 October 2015 (21.10.2015)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
14/522,991 24 October 2014 (24.10.2014) US
- (71) Applicant: **CHEVRON PHILLIPS CHEMICAL COMPANY LP** [US/US]; 10001 Six Pines Drive, The Woodlands, Texas 77380 (US).
- (72) Inventors: **ROHATI, Vivek**; 9205 N 103rd East Avenue, Owasso, Oklahoma 74005 (US). **INN, Yongwoo**; 217 Sagebrush Drive, Bartlesville, Oklahoma 74006 (US). **SUKHADIA, Ashish M**; 2550 SE Regency Road, Bartlesville, Oklahoma 74006 (US). **YANG, Qing**; 2917 Montrose Drive, Bartlesville, Oklahoma 74006 (US). **DESLAURIERS, Paul J.**; 6831 E 84th Street N, Owasso, Oklahoma 74055 (US).
- (74) Agent: **HUSEMAN, Cheryl L.**; Chevron Phillips Chemical Company LP, 10001 Six Pines Drive, The Woodlands, Texas 77380 (US).

- (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: POLYMERS WITH IMPROVED PROCESSABILITY FOR PIPE APPLICATIONS

(57) Abstract: A crosslinked metallocene-catalyzed polyethylene copolymer having a higher molecular weight (HMW) component and lower molecular weight (LMW) component wherein the HMW component is present in an amount of from about 10 wt.% to about 30 wt.% and wherein the LMW component is present in an amount of from about 70 wt.% to about 90 wt.%.



WO 2016/064984 A1